



Accurate Kinetic Energy

No.11-3 Jianguo Rd., Tanzi Dist., 42760 Taiwan

All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: JL

Page: 1/4 Date: August 01,2022

Specification Title:

### Voltage Controlled Clock Oscillator

### 5.0 x 3.2 millimeter Surface Mount General Product Specification

Part Number:

**V5 Series**

### Electrical Specifications:

Frequency Range		1.000 ~ 52.000	MHz
Frequency Stability		±25 ~ ±100	ppm
Aging per Year		±3	ppm Max.
Operating Temperature Range	Standard	-20 ~ +70	°C
	Extended	-40 ~ +85	
Storage Temperature Range		-55 ~ +125	
Supply Voltage		3.3 ± 10%      5.0 ± 10%	VDD
Input Current		30	mA Max.
Output Voltage	Logic High (Voh)	90%	VDD Min.
	Logic Low (Vol)	10%	VDD Max.
Output Symmetry (Duty Cycle)	Standard	40 ~ 60 ( at 50% VDD)	%
	Tight	45 ~ 55 ( at 50% VDD)	
Output Type		CMOS	
Output Load		15	pF Max.
Rise and Fall Time		5	ns Max.
Frequency Control Voltage		1.65 ± 1.50      2.5 ± 2.0	VDD
Frequency Pulling Range		±50 ~ ±150	ppm Min.
Linearity - Positive Slope		10%	% Max.
Enable-Disable Function		Tri-State	
Input Enable Voltage		70%	VDD Min.
Input Disable Voltage		30%	VDD Max.
Phase Jitter (12 KHz to 20 MHz)		1	ps Max. RMS
Start Up Time		10	ms Max.

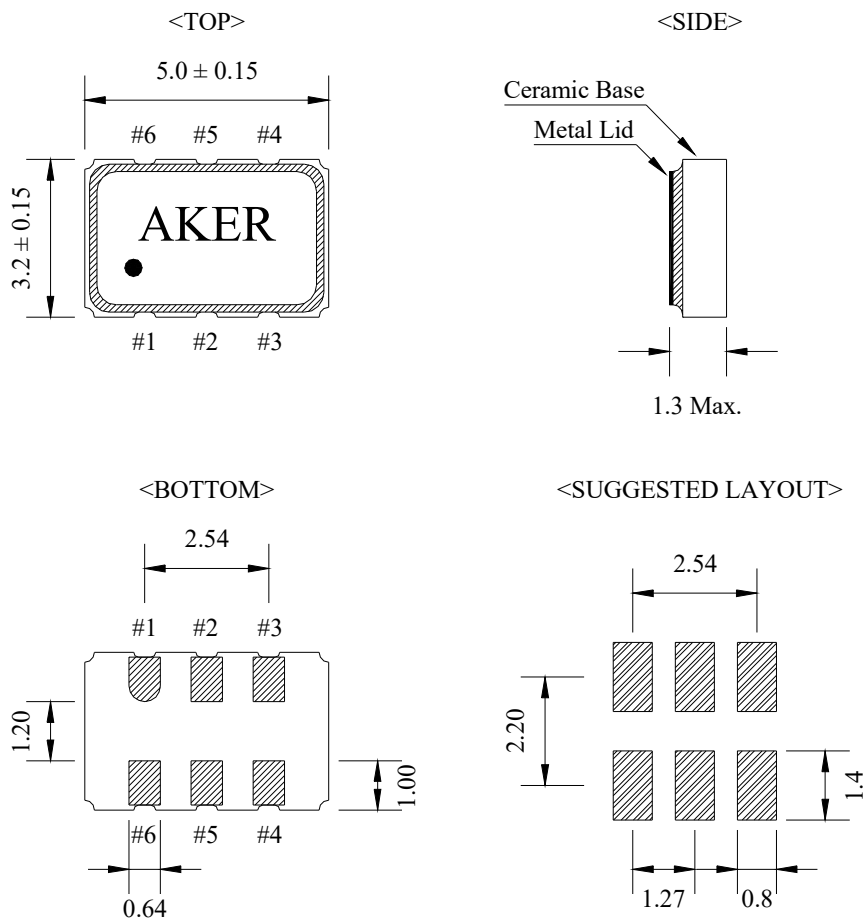
Temperature stability is Inclusive of all conditions:

Calibration Tolerance at +25°C, frequency stability over the operating temperature range, supply voltage change, output load change, shock, vilbration, and 1st year aging at +25°C.

**RoHS Compliant  
Pb - Lead Free**

Ltr	Revisions	Date	Appr

## Mechanical Outline and Solder Pad Layout:

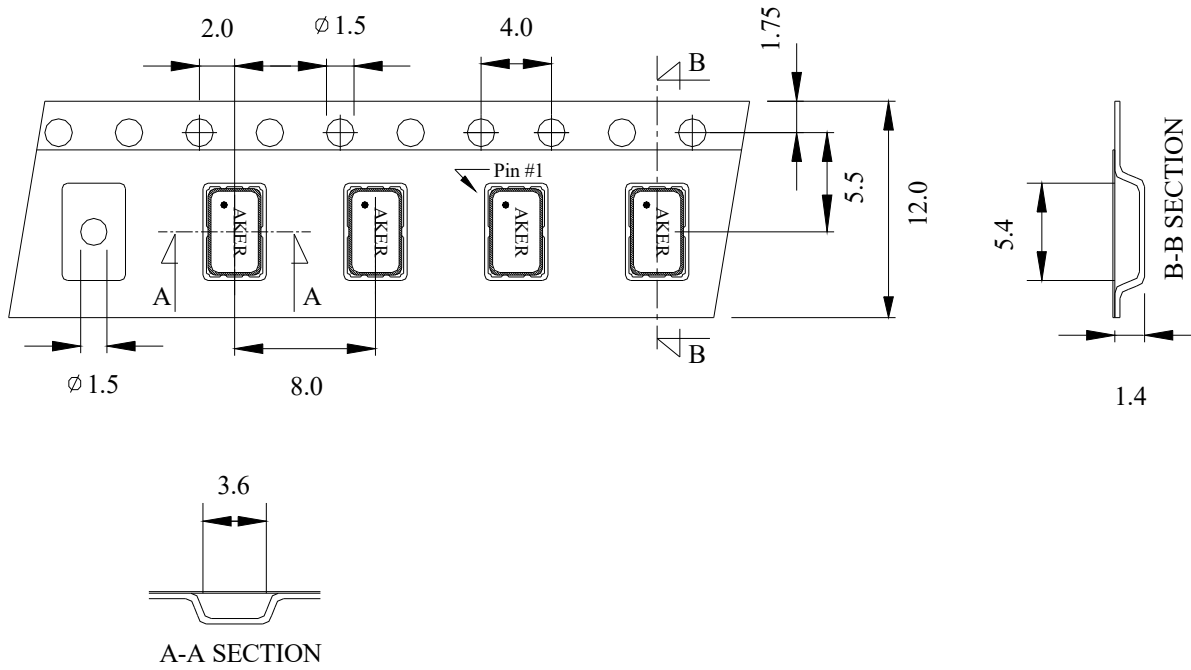


Pin Connection	
PIN No.	Connection
#1	V <sub>CON</sub>
#2	Enable/Disable
#3	GND
#4	Output
#5	NC
#6	VDD

Enable/Disable Function	
PIN #2	PIN #4
HIGH or OPEN	Operating
LOW	High Impedance

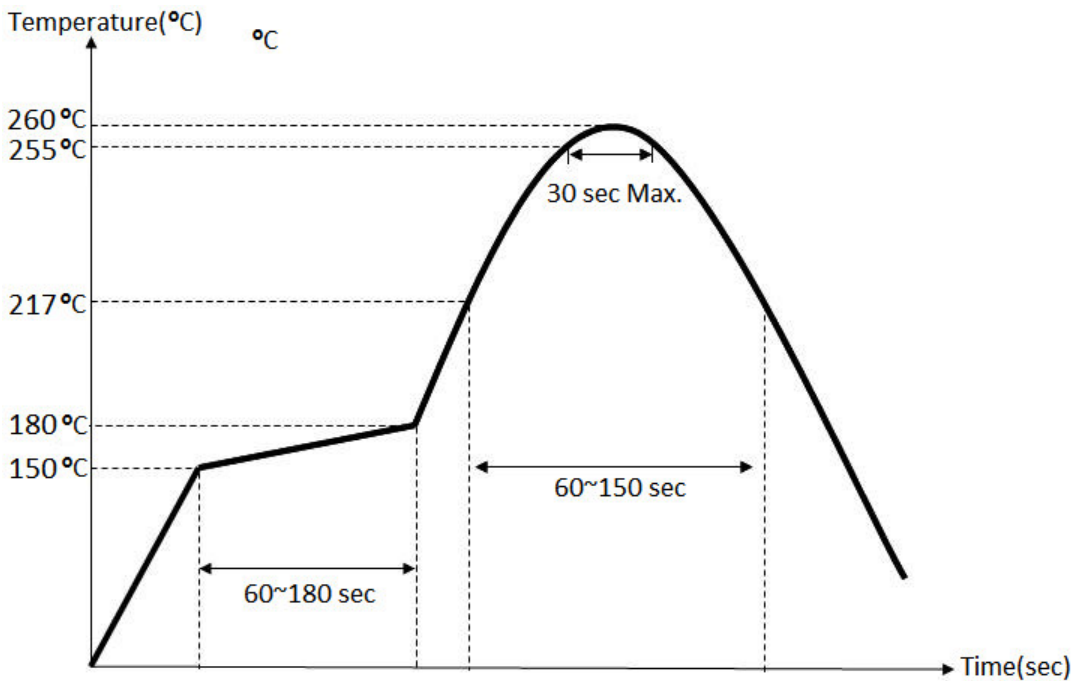
**Package is Seam Sealed Ceramic-Metal.**  
**Terminator Pads are Ni/Au.**  
**Dimensions are millimeters.**

### Carrier Tape Dimensions:



Dimensions are millimeters.

### Solder Reflow Characteristics:



### How to build a Part Number:

Series	V	Parameter
Package	5	5.0 x 3.2 mm - 6 Pad
Supply Voltage	5	+5.0 VDD ± 10%
	33	+3.3 VDD ± 10%
Temperature Stability	10	±100 ppm
	05	±50 ppm
	025	±25 ppm
Frequency Pulling Range	150	±150 ppm
	100	±100 ppm
	50	±50 ppm
Duty Cycle	See Notes	40%~60%
	T	45%~55%
Frequency	1.000~52.000	MHz
Temperature Range	See Notes	-20 ~ +70 °C
	X	-40 ~ +85 °C
Packaging	M	250pcs Reel
	R	1000pcs Reel

### Part Number Example:

V53305100T-25.000-X-R

V5: 5.0 x 3.2 mm SMD Package - 6 Pad VCXO

33: +3.3±10% VDD Supply Voltage

05: ±50 ppm Temperature Stability

100: ±100 ppm Min. Frequency Pulling Range

T: 45%~55% Tight Symmetry

25.000 MHz Nominal Frequency

X: -40 ~ + 85°C Extended Temperature Range

R: Tape and Reel Packaging - 1000pcs Reel

### Notes:

- 1- Standard Duty Cycle and Temperature Range do not need to be included in Part Number description.
- 2- Product is shipped in Tape and Reel configuration.
- 3- Quantities less than 250pcs are shipped in tape only.
- 4- Specification subject to change without notice.